

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 (Currently amended): A method for rf power amplifying which comprises:

- a) series connecting upper and lower solid-state current devices;
- b) said series connecting step comprises connecting a lower-voltage terminal of said upper solid-state current device to an rf choke, and connecting said rf choke to a higher-voltage terminal of said lower solid-state current device;
- c) separately amplifying rf signals in said solid-state current devices at a selected operating frequency;
- d) rf decoupling said solid-state current devices;
- e) said rf decoupling step comprises providing a capacitance between said lower-voltage terminal and an electrical ground; and
- f) said rf decoupling step further comprises making an rf effective series resistance of said capacitance lower than that of any porcelain capacitor that resonates at said selected operating frequency.

2 (New). A method as claimed in Claim 1 in which said step of making an rf effective series resistance lower than that of any porcelain capacitor comprises making two capacitors function as parallel-connected capacitors.

3 (New). A method as claimed in Claim 1 in which said method further comprises:

- a) splitting an rf input into said rf signals prior to said separate amplifying step; and
- b) combining said separately amplified rf signals.

Application No.: 10/602,442
Response dated Aug. 31, 2004
Response to Notice of Non-Compliant Amend.

4 (New). A method as claimed in Claim 2 in which said rf decoupling step further comprises selecting two of said capacitors to resonate at substantially the same frequency.

5 (New). A method as claimed in Claim 2 in which said rf decoupling step further comprises:

- a) selecting one of said capacitors to resonate at a frequency that is higher than said selected operating frequency; and
- b) selecting an other of said capacitors to resonate at a frequency that is lower than said selected operating frequency.

6 (New). A method as claimed in Claim 2 in which said rf decoupling step further comprises:

- a) selecting two of said capacitors to resonate at frequencies that are higher than said selected operating frequency; and
- b) selecting an other two of said capacitors to resonate at frequencies that are lower than said selected operating frequency.

7 (New). A method as claimed in Claim 2 in which said rf decoupling step further comprises:

- a) selecting two of said capacitors to resonate at separate frequencies that are both higher than said selected operating frequency; and
- b) selecting an other two of said capacitors to resonate at separate frequencies that are both lower than said selected operating frequency.

8 (New). A method as claimed in Claim 2 in which:

- a) said method further comprises disposing said selected operating frequency within a broad band of operating frequencies;
- b) said rf decoupling step further comprises selecting a first plurality of said capacitors to resonate in a higher-frequency portion of said broad band; and

Application. No.: 10/602,442

Response dated Aug. 31, 2004

Response to Notice of Non-Compliant Amend.

c) said rf decoupling step still further comprises selecting a second plurality of said capacitors to resonate in a lower-frequency portion of said broad band.

9 (New). A method as claimed in Claim 1 in which:

- a) said method further comprises disposing said selected operating frequency within a broad band of operating frequencies;
- b) said rf decoupling step further comprises making an rf effective series resistance of said capacitance lower than that of any porcelain capacitor that resonates in a higher-frequency of said broad band; and
- c) said rf decoupling step still further comprises making an rf effective series resistance of an other capacitance lower than that of any porcelain capacitor that resonates in a lower-frequency of said broad band.

10 (New). A method as claimed in Claim 1 in which:

- a) said method for rf power amplifying further comprises series connecting a third solid-state current device with said upper and lower solid-state current devices;
- b) said method further comprises supplying a variable voltage to a control terminal of said third solid-state current device; and
- c) said method still further comprises controlling an rf output of one of said amplified rf signals as a function of said variable voltage.

11 (New). A method as claimed in Claim 1 in which:

- a) said separate amplifying step comprises rf amplifying one of said rf signals at varying frequencies; and
- b) said method comprises flattening an rf output of one of said amplified rf signals with respect to said varying frequencies.

12 (New). A method as claimed in Claim 1 in which:

- a) said method comprises series connecting a third solid-state current device with said upper and lower solid-state current devices;

Application. No.: 10/602,442

Response dated Aug. 31, 2004

Response to Notice of Non-Compliant Amend.

- b) said separate amplifying step comprises amplifying said rf signals at equal and varying frequencies;
- c) said method further comprises combining said separately amplified rf signals into a single rf output;
- d) said method still further comprises flattening said single rf output with respect to said varying frequencies; and
- e) said flattening step comprises detecting said single rf output, using said detected rf output to control said third solid-state current device, and using said third solid-state current device to control said separate amplifying steps.

13 (New). A method as claimed in Claim 1 in which:

- a) said method comprises series connecting a third solid-state current device with said upper and lower solid-state current devices;
- b) increasing current flow through two of said solid-state current devices with respect to said current flow through an other of said solid-state current devices; and
- c) said increasing step comprises shunting current flow around said other solid-state current device.

14 (New). A method as claimed in Claim 1 in which said method comprises:

- a) series connecting a third solid-state current device with said upper and lower solid-state current devices;
- b) amplifying an rf input in said third solid-state current device; and
- c) splitting said amplified rf input into said rf signals.

15 (New). A method as claimed in Claim 1 in which said method comprises:

- a) series connecting third and fourth solid-state current devices with said upper and lower solid-state current devices;
- b) amplifying an rf input in said third solid-state current device;
- c) splitting said amplified rf input into said rf signals;

Application. No.: 10/602,442

Response dated Aug. 31, 2004

Response to Notice of Non-Compliant Amend.

- d) supplying a variable voltage to a control terminal of said third solid-state current device; and
- e) controlling power amplification of said upper and lower solid-state current devices as a function of said variable voltage.

16 (New). A method as claimed in Claim 1 in which said method comprises:

- a) connecting third and fourth solid-state current devices in parallel; and
- b) connecting said parallel-connected third and fourth solid-state current devices in series with said upper and lower solid-state current devices.

17 (New). A method as claimed in Claim 1 in which said method comprises:

- a) connecting third and fourth solid-state current devices in parallel;
- b) connecting said parallel-connected third and fourth solid-state current devices in series with said upper and lower solid-state current devices;
- c) amplifying an rf input in said third solid-state current device;
- d) splitting said amplified rf input into said rf signals;
- e) delivering a variable control voltage to said fourth solid-state current device; and
- f) controlling said separate amplifying steps as a function of said variable control voltage.

18 (New). A method as claimed in Claim 1 in which:

- a) said method comprises splitting an rf input into said rf signals; and
- b) said separate amplifying steps comprise producing separate rf outputs.

19 (New). A method as claimed in Claim 1 in which:

- a) said method comprises splitting an rf input into said rf signals;
- b) said separate amplifying steps comprise producing separate rf outputs; and

Application No.: 10/602,442

Response dated Aug. 31, 2004

Response to Notice of Non-Compliant Amend.

c) said method further comprises separately phase-shifting one of said separate rf outputs.

20 (New). A method as claimed in Claim 1 in which said method further comprises:

- a) splitting an rf input into said rf signals and a third rf signal; and
- b) separately amplifying said third rf signal.

21 (New). A method as claimed in Claim 1 in which said method further comprises:

- a) splitting an rf input into said rf signals and a third rf signal;
- b) separately amplifying said third rf signal; and
- c) combining all of said separately amplified rf signals.

22 (New). A method as claimed in Claim 1 in which:

- a) said method comprises series connecting a third solid-state current device with said upper and lower solid-state current devices;
- b) supplying a variable-voltage input to said third solid-state current device;
- c) producing a variable-frequency rf signal in said third solid-state current device that is a function of said variable-voltage input; and
- d) splitting said variable-frequency rf signal into said rf signals.

23 (New). A method as claimed in Claim 1 in which said method comprises paralleling a third solid-state current device with one of said series-connected solid-state current devices.

24 (New). A method as claimed in Claim 1 in which:

- a) said method further comprises rf decoupling a lower-voltage terminal of said lower solid-state current device; and
- b) said rf decoupling step comprises making an rf effective series resistance between said lower-voltage terminal and said electrical ground lower

Application No.: 10/602,442

Response dated Aug. 31, 2004

Response to Notice of Non-Compliant Amend.

than that of any porcelain capacitor that resonates at said selected operating frequency.

25 (New). A method as claimed in Claim 1 in which:

a) said method further comprises rf decoupling a lower-voltage terminal of said lower solid-state current device;

b) said rf decoupling step comprises making an rf effective series resistance between said lower-voltage terminal and said electrical ground lower than that of any porcelain capacitor that resonates at said selected operating frequency; and

c) said step of making an rf effective series resistance lower than that of any porcelain capacitor comprises making two capacitors function as parallel-connected capacitors.